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ABSTRACT

The Center for Vocational and Technical Education conducted a project entitled "Revision and Update of Traffic Safety Manpower Training Program Development Guide." The purpose of the project was to develop a guide entitled HIGHWAY TRAFFIC SAFETY MANPOWER FUNCTIONS GUIDE that provided an organizational schema illustrating the functions essential to be performed and the interrelationship of these functions to carry out highway traffic safety programs. A review of literature and a bibliography are reported. The data collection procedure involved conducting on-site interviews with persons performing the identified traffic safety functions. Major conclusions reached regarding the project were: (1) Non-environmental traffic safety program objectives can be achieved through an adequate supply of competent manpower performing the identified functions. (2) Functions required in one functional area are similar or identical to functions within other areas, thus with minimum training, individuals could perform in several functional areas. (3) There is a variety of traffic safety related functions being performed in numerous agencies and organizations under a variety of job titles. (Author)

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REVISION AND UPDATE OF TRAFFIC SAFETY MANPOWER TRAINING PROGRAM DEVELOPMENT GUIDE

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Final Report

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16. Abstract

The Center for Vocational and Technical Education conducted a project entitled "Revision and Update of Traffic Safety Manpower Training Program Development Guide." The purpose of the project was to develop a guide entitled Highway Traffic Safety Manpower Functions Guide that provided an organizational schema illustrating the functions essential to be performed and the interrelationship of these functions to carry out highway traffic safety programs. A review of literature and a bibliography are reported. The data collection procedure involved conducting on-site interviews with persons performing the identified traffic safety functions.

Major conclusions reached regarding the project were:

1. Non-environmental traffic safety program objectives can be achieved through an adequate supply of competent manpower performing the identified functions.
2. Functions required in one functional area are similar or identical to functions within other areas, thus with minimum training, individuals could perform in several functional areas.
3. There is a variety of traffic safety related functions being performed in numerous agencies and organizations under a variety of job titles.

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FINAL REPORT

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January 1974

PREFACE

The Center for Vocational and Technical Education conducted for the National Highway Traffic Safety Administration, U.S. Department of Transportation, a study entitled "Revision and Update of Traffic Safety Manpower Training Program Development Guide." The purpose of the project was to identify and describe highway traffic safety functions within the current NHTSA highway traffic safety program standards.

This publication serves as the final technical report. The literature reviewed, the procedure and methodology employed in conducting the project, and the findings, conclusions and recommendations resulting from the project endeavors are reported.

A second document, Highway Traffic Safety Manpower Functions Guide,* contains a synthesis of information resulting from this study. The guide identifies and describes the major manpower functions in highway traffic safety aimed at achieving a common goal--reducing deaths, injuries, and property damage.

The project was directed by Ronald Daugherty, Associate Director of Resource Development at CVTE. Project associate director was Anne C. Hayes, and Niall V. Corwell served as the project graduate research associate. Samuel C. Reed was a project technician and Pauline Frey was the project secretary. George Palmer of NHTSA served as contract technical manager (CTM). Kendrick Spooner, Northern Colorado State University and Richard Coatney, research and development specialist at CVTE, served as consultants for designing the survey instruments.

The names of NHTSA program area consultants and on-site traffic safety specialists who contributed information and data contained in the guide appear in Appendix A of this report.

Robert E. Taylor
Director
The Center for Vocational
and Technical Education

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INTRODUCTION

In the past decade a major problem has been evolving on the trafficways of America. Statistics show that more than 55,000 people are killed and an additional two million injured on our streets and highways each year. Property damage due to highway accidents exceeds $19.4 billion annually (National Safety Council, 1973). The growing concern of the American society is illustrated by the National Highway Safety Act of 1972.

Highway safety program standards, as promulgated by the secretary of the U.S. Department of Transportation, evolved from these major pieces of highway traffic safety legislation. The standards have fluctuated and have numbered as many as eighteen, Highway Safety Program Manuals (Federal Highway Administration, 1972). The most recent proposed revision set forth eight standards for highway traffic safety (National Highway Traffic Safety Administration, 1972b). Once these safety standards were established, administrators of highway traffic safety programs realized a lack of trained manpower to implement these standards. The study Safety Specialist Manpower (Booz, et al., 1968), conducted for the U.S. Department of Transportation, dealt specifically with anticipated manpower needs in the area of highway traffic safety. The study was made prior to the full establishment and understanding of the original sixteen safety standards. Nevertheless, this four-volume report has served as a benchmark reference for manpower studies, projections, and recommendations made during the past few years.

Another study, The Feasibility of Establishing Highway Safety Manpower Development and Research Centers at University-Level Institutions, conducted by Stanford Research Institute (1969), also provided some insight into the manpower needs and the corresponding training needs necessary for manpower development in the area of highway traffic safety. This study also serves as one of the foundation studies to be considered for highway traffic safety manpower development and educational efforts.

Both of the earlier manpower studies in highway traffic safety were deficient in information regarding highway traffic safety occupations requiring less than a baccalaureate degree. In response to this need for technical manpower information in the traffic safety area, a project (FH-11-7507) was initiated by The Center for Vocational and Technical Education (CVTE), in fiscal year 1970. The purpose of this study was to examine

closely the earlier manpower studies in highway traffic safety and to collect information from each of the original sixteen highway safety program standard areas, the literature, and other resources deemed useful for developing curricula and instructional materials and programs for highway traffic manpower training.

The project entitled "Expansion of Vocational-Technical School Programs to Accommodate Highway Safety Manpower Needs," (Daugherty, et al., 1971a.) resulted in a final report and a publication entitled Highway Safety Occupational Program Development Guide (Daugherty, et al., 1971b). This guide was developed to serve five purposes:

1. To acquaint educators with an occupational field in which there exists a severe manpower shortage.

2. To identify sources of curriculum materials and references for program development in the areas of traffic safety occupations.

3. To highlight some existing educational programs that are providing traffic safety manpower.

4. To suggest some alterations to existing occupational preparation programs for the purpose of training people in the function of traffic safety.

5. To encourage the development of new programs for training people in new and emerging traffic safety occupations.

Some of the recent developments and changes in highway traffic safety have been so rapid that a need exists for an updated program development guide to encompass the realignments and revisions of the highway traffic safety program standards. The original Highway Safety Occupational Program Development Guide dealt only with technical-level manpower training, whereas the revised guide was expanded to encompass professional and managerial functions supporting the implementation of the highway traffic safety program standards.

The National Highway Traffic Safety Administration (NHTSA), sponsored a project with CVTE to identify highway traffic safety functions within the current status of their highway safety program standards. The end product of the project was to consist of a Highway Traffic Safety Manpower Functions Guide. The guide represents a first attempt to provide an organizational schema that illustrates the functions essential to be performed to carry out highway traffic safety programs. An attempt also was made to identify the interrelationships between the functions contained within each functional area. All aspects of highway

safety excluding the environmental standards are incorporated within the guide.

The guide will be of value to a great variety of personnel involved in all of the diverse areas of highway traffic safety. Professional and managerial personnel such as state program administrators and local administrators and supervisors should find the guide useful when planning and determining the scope of work and functions to be performed in accomplishing the goals of highway safety. Community colleges, vocational-technical schools and other agencies and institutions concerned with manpower development for highway traffic safety functions will find the guide valuable in the design and development of curriculum. This guide also should prove valuable to agencies and groups involved in the various functional areas of highway traffic safety by portraying the overall field in a functional setting and by identifying the place and interrelationships of the different units in this setting. Career counselors serving youth and adults will find the information contained in the guide beneficial when exploring potential career opportunities within the wide gamut of highway traffic safety.

REVIEW OF LITERATURE

Much has been written concerning manpower in highway traffic safety, some of which deals with job specifications or performance criteria. A review of the more current key literature was made to form an information base for conducting the study and to supplement the findings to be incorporated into the Highway Traffic Safety Manpower Functions Guide. All the materials were examined with reference to the current status of highway safety and to determine the appropriateness of content for inclusion in the guide.

As information was accumulated and examined by the project staff, materials were allocated into one of three categories: (1) highway safety literature in general, (2) literature applicable to any combination of one or more of the highway safety program areas, and (3) literature related to survey instrument development.

Highway Safety Literature in General

The National Traffic and Motor Vehicle Safety Act of 1966 (Public Law 89-563) and the National Highway Safety Act of 1966 (Public Law 89-564) remain the current legislation underlying all highway safety activities at the federal, state, and local levels. The present eighteen safety program standards resulted from those laws, and standards in the Highway Safety Program Manuals (FHA, 1969), volumes one through eighteen were reviewed. By comparing the existing safety program standards to the proposed eight new program areas, the staff was able to recognize additions and deletions of highway traffic safety functions in the transition from the existing standards to the proposed program areas.

Section 106(a) of the National Traffic and Motor Vehicle Safety Act of 1966 states that the secretary of transportation is authorized to make grants to nonprofit organizations and to state and interstate agencies who will conduct research and development endeavors and training programs.

One such NHTSA-sponsored manpower development study was conducted by Booz, Allen and Hamilton, Inc., (1968). This report consists of a comprehensive inventory of all existing state highway traffic safety positions at that time and positions projected for the future. The study translates all

position titles into thirty-six composite occupations based on similar training requirements. These occupations were studied in order to determine which highway traffic safety functions and which additional related functions could be included in the handbook. The staff also studied the job descriptions listed under each occupation, both for content and comparison to current job descriptions collected from highway traffic safety specialists in the field.

The 1969 Stanford Research Institute study, The Feasibility of Establishing Highway Safety Manpower Development and Research Centers at University Level Institutions, provides some insight into the manpower and training needs in the areas of highway traffic safety at the university level.

Another major publication reviewed was the Highway Safety Occupational Opportunities, prepared by the Highway Users Federation for Safety and Mobility for the National Highway Safety Bureau (1970). Each safety specialty explored included the following categories:

1. Job description
2. Nature of the work
3. Qualifications
4. Education and training
5. Working conditions
6. Opportunities for advancement
7. Service to society
8. Employment outlook
9. Unique characteristics of the job

The study describes highway safety career opportunities by job titles and is based primarily upon the original sixteen safety program standards.

The Highway Safety Occupational Program Development Guide (Daugherty, et al., 1971b), prepared by CVTE contains job descriptions, manpower requirements, existing programs, and training programs in many of the areas of highway safety. Information from the development guide in certain areas was extracted and specialists who had participated in the development of the guide were consulted in order to enhance expertise in particular areas of highway safety.

The U.S. Department of Transportation, (NHTSA, 1972b) proposed a research study for the purpose of identifying traffic safety functions within the eight proposed standards consisting of the following areas:

1. Program Administration and Evaluation
2. Traffic Laws and Regulations
3. Vehicle Requirements
4. Traffic Safety Education
5. Driver Licensing
6. Police Traffic Services
7. Traffic Courts and Adjudication Systems
8. Emergency Medical Services

The Highway Safety Program Management publication (Automotive Safety Fourication, 1968) provided information related to planning, developing, and implementing statewide traffic safety programs. The material was devoted to organizational structure and the details that an organization and management need to achieve.

Annual highway safety work plans 1973-74 from states of Michigan (Highway Safety Planning, 1973), Texas (Office of Traffic Safety, 1973), and Washington (Washington Traffic Safety Commission, 1973) were reviewed for manpower information and projected needs in highway safety.

To keep abreast of current trends in highway safety, the National Safety Council's monthly publication, Traffic Safety; NHTSA's bi-weekly publications, Highway Safety Literature and the Highway User were consistently reviewed. Accidents Facts, 1973 Edition (NSC, 1973) was reviewed to obtain up-to-date highway accident figures. The most recent issues of the U.S. Department of Transportation's annual reports under the National Traffic and Motor Vehicle Safety Act and the National Highway Safety Act were reviewed for data related to the area of manpower for highway safety.

Literature Applicable to Highway Traffic Safety Program Areas

There were many publications reviewed that did not fall into the category of "highway safety literature in general." These

include more specific publications that were applied to particular program areas.

In the area of traffic records systems, the Georgia Traffic Records Study prepared by the Traffic Institute, Northwestern University (1969), was reviewed. Information was extracted concerning planning, operation, and utilization of traffic records systems.

The Police Alcohol Training Project Technical Report, Michigan State University (Carnahan, 1972), Alcohol and Alcohol Safety Curriculum Manuals (NHTSA, 1972a,b,c), Basic Training Program for Breath Examiner Specialists (NHTSA, 1971,a,b,c) and Public Information Programs on Alcohol and Highway Safety (Swinehart and Grimm, n.d.) provided information on current alcohol countermeasures programs in the United States.

In pupil transportation, NHTSA's The Selection and Training of School Bus Drivers (n.d.), Pupil Transportation Safety Program Plan (19731); the National Highway Safety Bureau's School Bus Safety--Operator Age in Relation to School Bus Accidents (1969); the Ohio State Department of Education's Ohio Pupil Transportation Laws and Regulations (1970), and Ohio's School Bus Driver Training--Basic Course Learner's Manual (1963); were reviewed for information pertinent to the functional area of pupil transportation. The School Bus Inspection and Maintenance Guide (1970), was reviewed for functional information.

In driver licensing, several state information booklets and pamphlets were reviewed, both for informative and comparative reasons. NHTSA's Basic Training Program for Driver License Examiners (1971d,e,f), and Driver License Examiners Supervisor (1973f,g,h), were surveyed for identification of licensing functions. The California Driver Improvement Manual (Division of Driver's Licenses, n.d.), and the Basic Program for Driver Improvement Analyst (NHTSA, 1973c,d,e) provided insight into the function of driver improvement analysis.

State agencies in Ohio, California, and South Dakota provided information for the use in writing functional descriptions for motor vehicle registration and inspection.

In traffic safety education, several publications were reviewed. Among them were An Evaluation of Driver Education, (McGuire and Kersh, 1969), and Basic Driver Education, (Bonner, Gutshall, and Kenel, 1966). These books covered not only state supported driver education, but also provided information on commercial driving schools. Training programs reviewed for technical input consisted of Introduction to Teaching--Driver Education Teaching Assistant's Program (Department of Industrial

Education, 1973), A Resource Curriculum in Driver and Traffic Safety Education (Education Manpower Development Division, 1970), Driver Education for the Handicapped (Safety Center, 1971), and Driver Improvement Program--Defensive Driver's Manual (NSC, 1971).

Informational booklets received from manufacturers of various speed detection devices were reviewed. These were the only product promotional-type materials from manufacturers that were examined.

The annual report, Judicial Administration in the Courts, State of Washington (The Office of Administrator for the Courts, 1972), A Report of the Status and Potential Implications of Decriminalization of Moving Traffic Violations (NHTSA, 1973a), and Manual of Rules and Procedures--Oklahoma Traffic Court (Roberts, et al., n.d.) were examined for information regarding the court systems.

A textbook for emergency medical personnel, Emergency Victim Care (OSDE, 1972), provided information and photographs concerning the emergency medical services. It was prepared for the state of Ohio by the Ohio Trade and Industrial Education Service. Basic Training Course--Emergency Medical Technician--Ambulance (NHSB, 1970), Dispatcher (NHTSA, 1972h), and Communications--Guidelines for Emergency Medical Services (U.S. Department of Transportation, 1972) were used extensively in the emergency medical services section. They were prepared specifically for NHTSA.

The Accident Investigation Technician Instructor Training Institute (NHTSA, 1973b) materials were studied to determine functions to be performed in this area.

The Police Traffic Services Supervisory Level Training Programs (NHTSA, 1973i,j,k) and the Police Traffic Services Basic Training Programs (NHTSA, 1972f,g) were reviewed for information applicable to the functional area of police traffic services.

The functional area of pedestrian safety materials reviewed consisted of the American Automobile Association's Pedestrian Safety Program Series (1965), 10 Traffic Safety Guides (Crabtree, 1970), and A Teacher's Guide for the Safest Route to School Project (AAA, n.d.).

Literature Related to Survey Instrument Development

The following literature was reviewed for information relating to the development of survey instruments.

Developing Vocational Instruction (Mager and Beach, 1967) provided insight into data necessary to collect for writing job descriptions and conducting a task analysis. Only specific sections were applicable to the project.

Insight into planning surveys, questionnaire construction and design and interviewing practices were gained through Survey Research (Backstrom and Hursh, 1963). The authors provided a step-by-step outline for field survey research.

Procedures and practices for conducting analysis of manpower occupations were reviewed in the Handbook for Analyzing Jobs (U.S. Department of Labor, 1972). This publication provided a more detailed analysis procedure than was required for project endeavors.

Personnel Management and Industrial Relations (Yoder, 1962), provided insight into defining the function-task approach used in writing the functional area descriptions contained in the guide.

STATEMENT OF THE PROBLEM

The highway traffic safety problem is manifested in part through the lack of adequately trained and deployed manpower to achieve program objectives. To describe the manpower needs within the field of highway traffic safety, several approaches are available and necessary to exemplify the various dimensions to be considered in supplying these needs. An approach lacking in the literature was one that described the functions needing to be performed by people to carry out stated highway traffic safety objectives and programs. Another approach that has received little attention is the interrelationship between the functional performance by individuals within the field of highway traffic safety.

The need to describe functions and to show an interrelationship between these functions constituted a problem of sufficient magnitude to warrant NHTSA to set a priority on the problem and establish it in their 1973-74 program of work.

Project Purpose

The NHTSA contracted with CVTE for the purpose of updating and revising materials within the Highway Safety Occupational Program Development Guide (Daugherty, et al., 1971b). This revision included the identification of highway traffic safety functions as prescribed within one or more of the eighteen highway traffic safety program standards administered by NHTSA or the new program areas as proposed in the "Highway Safety Program Standards," (NHTSA, 1972d). This project focused on (a) delineating functions to be performed in connection with each identified traffic safety functional area, (b) describing performance of each function, (c) indicating contribution of each function to highway safety, and (d) providing job titles and agencies in which the function is performed. A series of on-site interviews was conducted with identified specialists to determine the scope and nature of each function. The project reflected the manpower functions from the technical level through the professional and managerial levels. The project goal was to collect data from which to depict descriptions of highway traffic safety functions as opposed to conducting a large-scale job analysis survey.

Project Objectives

The major objectives for the project were to:

1. Identify the functions within each of the highway traffic safety program standards that must be performed to implement the standard.

2. Delineate functions to be performed within each identified highway traffic safety area by conducting a series of on-site interviews for the purpose of determining function descriptions, scope of work performed, nature of work, and contribution to highway safety.

3. Conduct a search of existing highway traffic safety literature to assist in identifying and describing existing highway traffic safety functions and requirements.

4. Identify and describe managerial and professional level functions.

5. Produce a Highway Traffic Safety Manpower Functions Guide and a final project report to be submitted to NHTSA upon project completion.

ASSUMPTIONS UNDERLYING THE STUDY

The project staff made the following assumptions in conducting this project.

1. The project staff could achieve the objectives with the assistance of selected NHTSA program specialists and consultants; by conducting selected on-site interviews, reviewing literature, and analyzing information provided by each of these sources.

2. The data gathered on highway traffic safety in the various geographical regions throughout the United States would, to a large degree, be applicable to the description of functions contained within the guide.

3. The consultants, NHTSA program area specialists, and on-site specialists identified to provide data are knowledgeable in their designated area of specialization.

4. The NHTSA program specialists knew and recommended on-site specialists across the nation who are performing one of the most exemplary jobs in the identified functional areas.

5. The individuals or programs identified for the project staff as being exemplary for their respective area would exemplify the performance of all functions essential to a comprehensive highway traffic safety program, excluding those primarily involved with environmental factors.

6. The interpretation of the performance described by or being performed by the individuals interviewed was in fact an accurate and complete account of functions being performed at a near optimum level of competence.

7. Each function consists of a series of activities and roles of a similar nature or integral in relationship but which may or may not constitute a full-time job or, in some instances, may not even require a major portion of the time spent in a full-time job.

8. The functions identified as being performed by the specialists interviewed and observed are not necessarily performed nationwide by specialists with the same or similar job titles or agency affiliation.

9. Certain rather discrete functions could be identified and described that when considered in total would comprise the total performance by manpower necessary to carry out a comprehensive highway traffic safety program.

LIMITATIONS OF THE STUDY

Certain limitations have been identified by the project staff.

1. The data used in this study were obtained from a literature search, and interviews of on-site specialists. Interviewees were a highly selected population identified by NHTSA program area specialists. Further data collected were primarily limited to manpower functions identified by NHTSA program area specialists.

2. A number of the on-site specialists identified as performing a designated function were not in actuality performing the functions for which they were being interviewed.

3. More on-site specialists identified by NHTSA program area specialists as performing a designated function were involved with federally sponsored projects than had been anticipated by the project staff.

4. This manpower study was limited to non-federal level functions performed in highway traffic safety.

5. In most instances, only one on-site specialist was interviewed for each highway traffic safety function.

6. The scope of highway traffic safety functions was limited to the current eighteen highway safety program standards excluding the environmental standards as promulgated by the NHTSA and as they are currently being performed in the various states.

7. The on-site interviews for the functions were conducted primarily in metropolitan areas since the individuals identified by NHTSA program area specialists were performing in these situations.

METHODOLOGY AND PROCEDURES

The methods and procedures were selected to achieve the project objectives in the most efficient and effective manner possible within the limits of available resources and time. The series of programmed activities aimed at achieving the project objectives were listed in the project plan (Figure 1). The scope of these activities was reflected in the five major task areas: (1) initiate the project and conduct literature search, (2) interview NHTSA program specialists, (3) plan and prepare for on-site interviews, (4) interview on-site specialists, and (5) prepare the guide. The procedures employed in performing these tasks are discussed in the following sections.

Task I: Initiate the Project and Conduct Literature Search

This initial phase of the project was primarily concerned with planning. During this period, the project staff (project director, two graduate research associates, a research technician, and a secretary), developed the detailed preliminary plan consisting of the project objectives, project plan description, time line and PERT chart. These items were submitted to the Contract Technical Manager (CTM) for review. Two members of the project staff met with the CTM in Washington, D.C., on April 24, 1973, to discuss possible modifications of the project plan. The final plan was subsequently prepared and adopted.

During this planning period, the project staff also arranged and conducted a two-day workshop for the purpose of developing a survey instrument to be used to interview NHTSA program specialists within the offices of Standards Development and Implementation, State and Community Comprehensive Programs, and Alcohol Countermeasures, in Washington, D.C. This survey instrument was designed to aid the project staff and program specialists in identifying traffic safety functions. A second use of the instrument was to aid in identifying those specialists performing functions in an exemplary fashion within each program area. Dr. Kendrick Spooner, University of Northern Colorado, and Dr. Richard Coatney, CVTE Evaluation Division, participated with project staff in this workshop and assisted in the development of the traffic safety specialties survey instrument #1. The project staff subsequently revised and finalized the NHTSA survey instrument #1 (Appendix A).

Figure 1

PROJECT PLAN

Dates	Activity	Activity Description
		TASK I: INITIATE THE PROJECT AND CONDUCT LITERATURE SEARCH
April 2, 1973	1.	Began project.
April 16, 1973	2.	Submitted preliminary plan consisting of project objectives, project plan description, time line, and PERT chart.
April 18, 1973	3.	Identified consultants to assist in designing Survey Instrument #1 for use in interviewing NHTSA program specialists.
April 20, 1973	4.	Began literature search.
April 24, 1973	5.	Met with CTM in Washington, D.C., to preview project plan.
April 26, 1973	6.	Began workshop to design Survey Instrument #1.
April 27, 1973	7.	Completed workshop for Survey Instrument #1.
April 30, 1973	8.	Submitted final project plan.
May 7, 1973	9.	Revised and finalized Survey Instrument #1.
		TASK II: INTERVIEW NHTSA PROGRAM SPECIALISTS
May 21, 1973	10.	Began interviewing NHTSA program specialists in Washington, D.C.
May 22, 1973	11.	Completed interviewing NHTSA program specialists in Washington, D.C.
May 30, 1973	12.	Completed identification of traffic safety specialists by NHTSA program area specialists.
		TASK III: PLAN AND PREPARE FOR ON-SITE INTERVIEWS
May 31, 1973	13.	Began work session for developing Survey Instrument #2 for interviewing traffic safety specialists.
June 1, 1973	14.	Completed work session for developing Survey Instrument #2 for interviewing traffic safety specialists.
June 8, 1973	15.	Completed listing of functions within each of the traffic safety program standards.
June 11, 1973	16.	Completed listing of available traffic safety specialists provided by NHTSA program specialists.
June 13, 1973	17.	Field tested Survey Instrument #2 for interviewing traffic safety specialists.

Project Plan Cont.

Dates	Activity	Activity Description
June 18, 1973	18.	Completed development of Survey Instrument #2 for interviewing traffic safety specialists.
June 21, 1973	19.	Began on-site interviews with traffic safety specialists in Columbus, Ohio.
June 26, 1973	20.	Began staff travel arrangements for conducting on-site interviews.
		TASK IV: INTERVIEW ON-SITE SPECIALISTS
July 5, 1973	21.	Began conducting on-site interviews out-of-state.
July 9, 1973	22.	Began analyzing interview data.
		TASK V: PREPARE THE GUIDE
July 15, 1973	23.	Began draft of Highway Traffic Safety Manpower Functions Guide.
July 31, 1973	24.	Met with CTM in Washington to discuss project progress to date.
October 5, 1973	25.	Began final technical report.
October 10, 1973	26.	Met with CTM in Columbus to review project progress to date.
	27.	Provided CTM with initial draft of guide materials.
October 28, 1973	28.	Completed conducting on-site interviews with traffic safety specialists.
November 2, 1973	29.	Provided NHTSA program specialists with initial drafts of functional descriptions for critiquing.
December 1, 1973	30.	Began revision of draft of guide.
December 27, 1973	31.	Took revised draft of Introduction, Table of Contents, and Pupil Transportation section to NHTSA-CTM for review.
December 28, 1973	32.	Agreed upon project extension data via telephone--NHTSA-CTM with project director.
January 8, 1974	33.	Revised Pupil Transportation and Administration sections submitted to NHTSA-CTM for review.
	34.	NHTSA-CTM to give back reviews on functional areas proposed, on introduction to guide, and on title of guide.
	35.	Revised project schedule submitted to NHTSA-CTM.

Project Plan Cont.

Dates	Activity	Activity Description
January 16, 1974	36.	Revised Driver Licensing, Emergency Medical Services, and Vehicle Registration and Inspection sections submitted to NHTSA-CTM for review
	37.	NHTSA-CTM review of January 8 materials due to project director.
January 23, 1974	38.	Revised Accident Investigation, Traffic Records, and Police Traffic Services sections given to NHTSA-CTM for review.
	39.	NHTSA-CTM review of January 16 materials due to project director.
January 30, 1974	40.	Revised Pedestrian Safety and Introduction to Guide sections submitted to NHTSA-CTM for review.
January 30, 1974	41.	NHTSA-CTM review of January 23 materials due to project director.
	42.	Sent draft of final technical report to NHTSA-CTM for review.
February 6, 1974	43.	Revised Driver and Traffic Safety Education, Traffic Court System, Appendices, and Bibliography and draft of completed guide given to NHTSA-CTM for review.
	44.	Completed Literature Search
	45.	NHTSA-CTM review of January 30 materials due to project director.
February 8, 1974	46.	Met with CTM in Washington, D.C. for final review of draft materials to be included in guide.
February 12, 1974	47.	NHTSA-CTM review of February 6 materials due to project director.
February 15, 1974	48.	Prepared guide and final technical report in camera-ready form.
February 28, 1974	49.	Sent copies of guide and final technical report to NHTSA-CTM and contracts office.
February 28, 1974	50.	Completed project.

The project staff also initiated the literature search through the Education Research Information Center (ERIC), the Mechanized Information Center (MIC), the National Technical Information Services (NTIS), and the U.S. Department of Transportation Library, for the purpose of identifying related highway traffic safety research, information, and training materials. A number of publications in the area of survey research were reviewed at this time for the purpose of assisting in the development and use of interview methods to be used in gathering project data.

The project staff reviewed the Federal Register (NHTSA, 1972d) on highway traffic safety and other related literature in anticipation of interviewing NHTSA program specialists. The staff also examined recent literature on interviewing techniques as reflected in the section "Review of Literature."

Task II: Interview NHTSA Program Specialists

The project staff, consisting of a three-member team, visited NHTSA headquarters in Washington, D.C., on May 21 and 22, 1973, to meet with NHTSA program specialists. These specialists were designated by the CTM to serve as consultants. Each NHTSA program specialist was requested to assist the project staff to: (1) interpret his designated area of the eighteen NHTSA traffic safety programs, (2) identify and define traffic safety functions within one of the eighteen traffic safety program areas, (3) specify at least two persons performing each identified traffic safety function in an exemplary fashion, and (4) arrange on-site interviews with each of the traffic safety specialists (Appendix B).

The project staff met individually with twenty NHTSA program specialists (Appendix C) during the two-day session. In addition to assisting the project staff in obtaining necessary project information, the NHTSA program specialists provided the staff with a variety of traffic safety related publications and other literature containing additional data for project use. Correspondence was carried out with two additional NHTSA program specialists to obtain further information related to the program areas of Traffic Codes and Laws and Traffic Court and Adjudication Systems.

As a result of the Washington interviews, approximately fifty-four specialists performing functions related to highway traffic safety were identified. Analysis further revealed that NHTSA program specialists had been unable to identify various on-site specialists performing technical-level functions in the field but had provided the project staff with the

names of highway traffic safety administrators in the various states who could assist in this identification. In the course of contacting the on-site administrators, project staff members were able to locate persons performing the traffic safety functions that they had identified.

As the project staff continued their reviews and research in highway traffic safety literature it became apparent that highway traffic safety functions in addition to those identified by the NHTSA program specialists were involved. As these functions and the individuals performing them were identified, they were added to the project listing of highway traffic safety functions to be explored for possible inclusion in the guide.

Task III: Plan and Prepare for On-Site Interviews

The design and development of survey instrument #2 for interviewing on-site specialists was undertaken during this period. The preliminary survey instrument #2, developed by the project staff, was tested by conducting simulated interviews with highway traffic safety specialists in Columbus, Ohio. As a result of these interviews the project staff, with assistance from Richard Coatney of the CVTE Evaluation Division, revised and finalized the instrument by: (1) adding several questions to increase the scope of the instrument; and (2) rearranging the order of questions with a view toward achieving an organized sequence (Appendix D).

A concurrent activity during this time and immediately following the Washington, D.C., interviews with the NHTSA program specialists consisted of planning and preparing for the on-site interviews with each identified traffic safety specialist. The project staff tabulated, reviewed, and classified the data as a result of the Washington interviews. This data provided information identifying highway traffic safety functions and specialists performing each function. The identified highway traffic safety specialists were then listed according to the ten NHTSA field regions. In July the CTM contacted the NHTSA Regional Offices to inform them of the project staff's plans to contact on-site specialists within federal, state, and community agencies in each of their respective regions.

Geographical regions were assigned by the project staff to staff members--Anne Hayes, Niall Corwell, and Sam Reed--who were responsible for conducting interviews with the on-site specialists. Each staff member was responsible for: (1) contacting all on-site specialists to be interviewed in the assigned

region(s) (Appendix E); (2) notifying and providing each NHTSA regional office with a listing of specialists to be interviewed and dates for the interviews within their respective regions (Appendix E); (3) preparing the necessary interview and travel schedules; and (4) conducting the interviews with each on-site specialist.

Throughout the entire project, the project staff conducted the review of the literature and the gathering of relevant highway traffic safety data. Extensive use was made of the ERIC system for the purpose of identifying information relevant to the project.

Task IV: Interview On-Site Consultants

When notified by the CTM in July that the NHTSA regional representatives had been informed of the plans for collecting data, the project staff began conducting interviews with the on-site specialists.

When conducting interviews the project staff, in most instances, were provided with an opportunity to observe the function being performed in actual field settings. Consequently, project staff have traveled in emergency medical vehicles in Florida, participated in helicopter traffic patrols in Ohio, witnessed alcohol countermeasure squads making arrests in Louisiana and California, and observed the traffic court in session in Oregon. These activities are indicative of the high degree of cooperation and support afforded the project staff by on-site specialists in this phase and indeed, throughout the entire project.

As a result of on-site interviews with administrative level specialists, further additional functions were identified. A total of ninety-seven on-site specialists each performing a particular highway traffic safety function, were interviewed in seventeen states. This distribution of on-site specialists interviewed involved all ten NHTSA field regions (Figure 2). Documentary materials were gathered through interviews and literature reviews to describe each function. The project staff completed all on-site interviews with highway traffic safety specialists on October 28, 1973.

Task V: Prepare the Guide

As the data on each highway traffic safety function was collected it was analyzed for relevancy for guide content. Initial draft descriptions of functions were prepared by the

project staff. These functional descriptions were categorized into eleven functional areas defined as a cluster of functions aimed at achieving a common goal in highway traffic safety. These functional areas proved to be the most logical groupings for the data contained within the guide.

When the majority of the initial draft descriptions of the highway traffic safety functions were completed, the CTM met with the project staff at CVTE in Columbus, Ohio, on October 10, 1973, for the purpose of reviewing the initial drafts provided the CTM at this time, discussing the project progress to date, and finalizing plans for completion of the project.

During November, 1973, initial draft descriptions of each function were distributed to the NHTSA program specialists who served as original consultants at the initiation of the project. These persons were asked to critique the draft descriptions for:

a. Completeness of content

b. Relevance of functional description

c. Up-to-dateness of material

d. Representativeness of the specialty

e. Comprehensiveness of the description

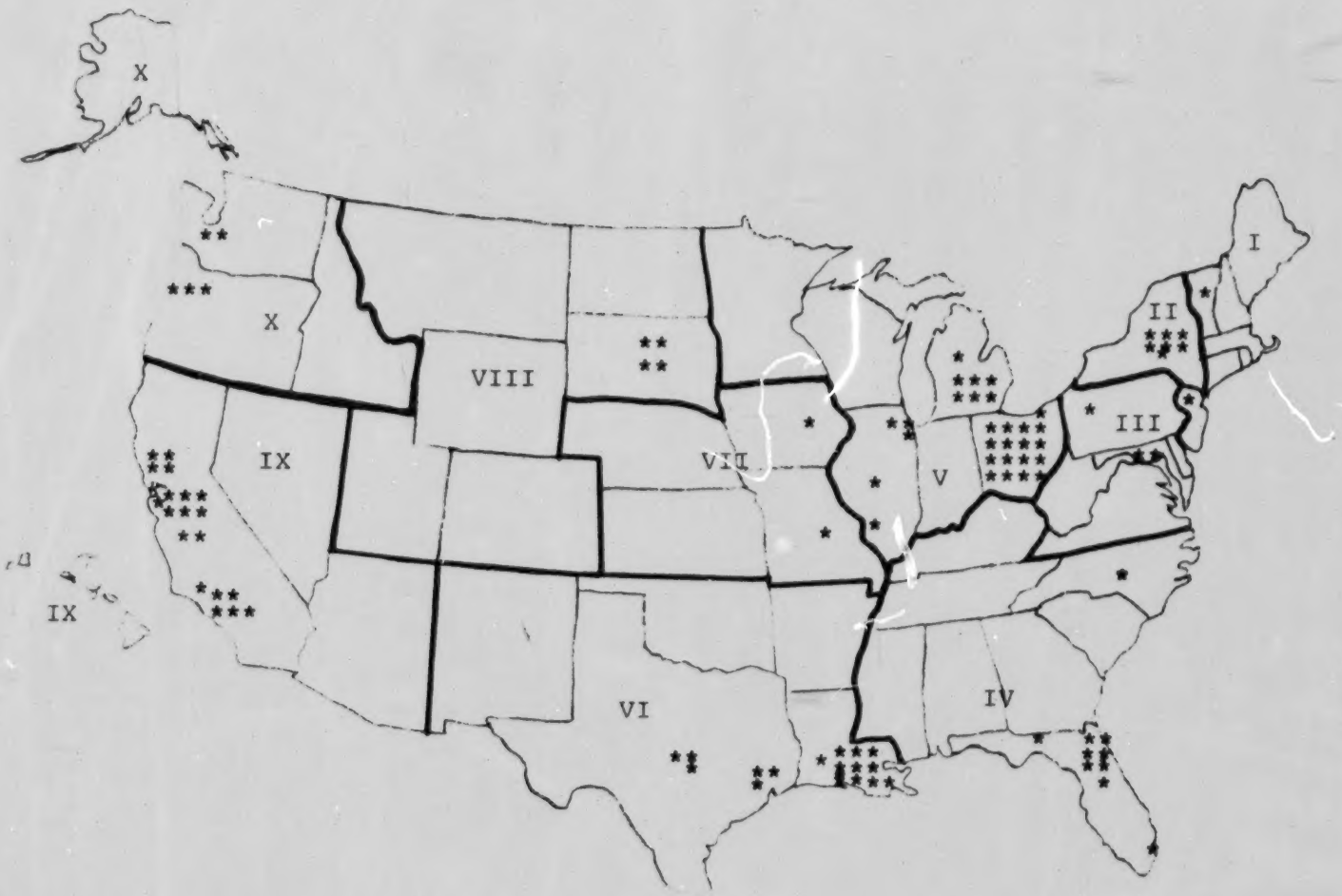
f. Accuracy of generalities made from data collected on-site (Appendix F)

The final phase of the project consisted of revising the draft materials to be included in the guide.

Subsequent meetings between the CTM and project director were held for the purpose of reviewing the descriptive write-ups for each functional area. These reviews served to insure the appropriateness of each identified function and technical accuracy of the description content. Suggested revisions were incorporated into the guide as deemed appropriate.

Figure 2

DISTRIBUTION OF ON-SITE SPECIALISTS INTERVIEWED
BY NHTSA FIELD REGIONS



FINDINGS

In recent years, the functions of manpower within highway traffic safety have changed to accommodate the new developments occurring within the field. The emphasis placed on the eighteen highway traffic safety program standards and the passage of the highway safety acts of 1966 and 1972 were mainly responsible for this activity. To meet this change in the manpower role, a study was conducted to identify and describe highway traffic safety functions from the technical level through the administrative and professional levels, and to show the interrelationships between these functions.

Descriptive data for each function were gathered from a literature search, through conducting interviews with NHTSA program specialists, and by interviewing on-site specialists performing within an identified functional area. An analysis of the data resulted in the following findings:

1. A publication describing the synthesized data and entitled Highway Traffic Safety Manpower Functions Guide was the final project outcome. The content of this guide is reflected in Figure 3.

2. The review of literature revealed that little has been written describing the occupational schema and interrelationships of manpower performance functions within the area of highway traffic safety. A large majority of administrators contacted through this project indicated a need for such information.

3. The process of interviewing NHTSA program specialists for the purpose of delineating the safety functions within the eighteen highway traffic safety program standards proved satisfactory in that fifty-four functions were identified. The secondary purpose of assisting the project staff in identifying those persons performing each function in an exemplary fashion resulted in a partial listing of individuals performing primarily in administrative and managerial capacities. Identification of technical level personnel proved to be the most difficult. Those individuals were subsequently identified by the on-site administrative and managerial persons. This resulted in several on-site interviews being conducted at a single site and in the information obtained reflecting the policies and procedures of a limited number of highway traffic safety organizations and agencies.

Figure 3

HIGHWAY TRAFFIC SAFETY MANPOWER
FUNCTIONS GUIDE

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BIBLIOGRAPHY
- Functional Area Bibliography
- General Bibliography

REFERENCES CITED

4. The process of obtaining NHTSA clearance to conduct interviews with on-site specialists proved to take more time than had been anticipated or alloted. This delay in gaining clearance resulted because of bureaucratic procedures and priorities beyond the control of the project staff.

5. The project staff began with an initial listing of some fifty-four manpower functions identified by the NHTSA program specialists during the May interviews and this listing eventually increased to ninety-seven. The approximatey 80 percent increase resulted largely from the project staff literature search and on-site interviews with administrative level consultants who identified additional functions. The resulting eleven functional areas consist of the following:

    Program Administration
    Motor Vehicle Registration and Inspection
    Driver Licensing
    Traffic Records
    Pupil Transportation
    Driver and Traffic Safety Education
    Pedestrian Safety
    Police Traffic Services
    Accident Investigation
    Traffic Court Systems
    Emergency Medical Services

    The data for each function was analyzed and synthesized and the eleven functional areas were subsequently divided into forty-five manpower functions (see Figure 4). Among these, several functions appear to be similar or interrelated between functional areas (Figures 5-9).

6. The on-site interview technique employed to obtain the information for describing each function proved successful. This technique enabled the project staff to discuss in depth the information relevant to the guide and also provided for firsthand observation, in most cases, of the function as it was being performed. The interviews yielded information on (a) job functions being performed, (b) contributions the function was making to highway traffic safety, (c) changes that have occurred and are occurring with the performance of the function, (d) the organizational structure within which the function was performed, (e) manpower development publications related to the function, and (f) job titles under which function was being performed.

7. Each of the ninety-seven highway traffic safety specialists identified and interviewed was located in a metropolitan city.

Figure 4

HIGHWAY TRAFFIC SAFETY
FUNCTIONAL AREAS AND RELATED FUNCTIONS

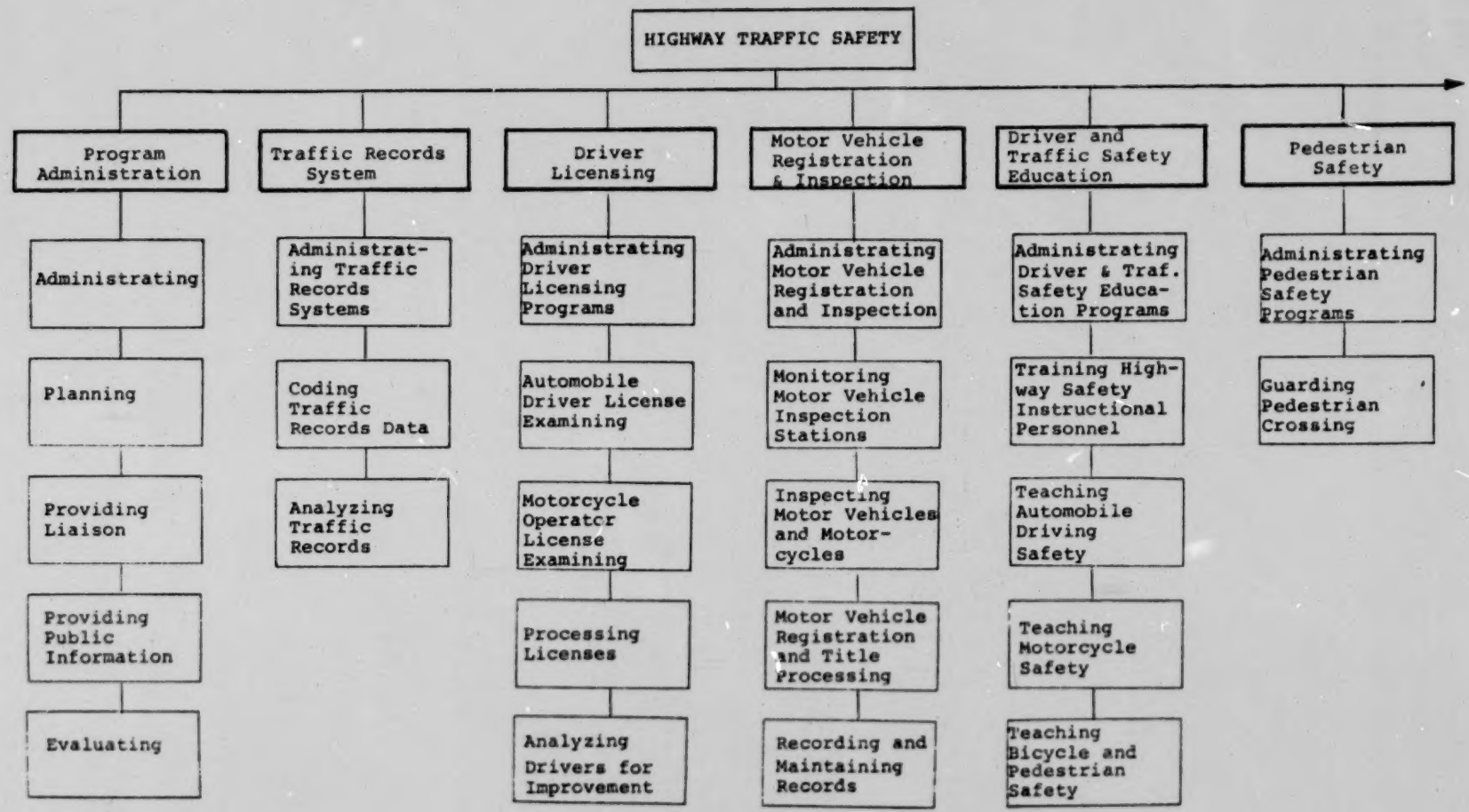


Figure 4 (Continued)

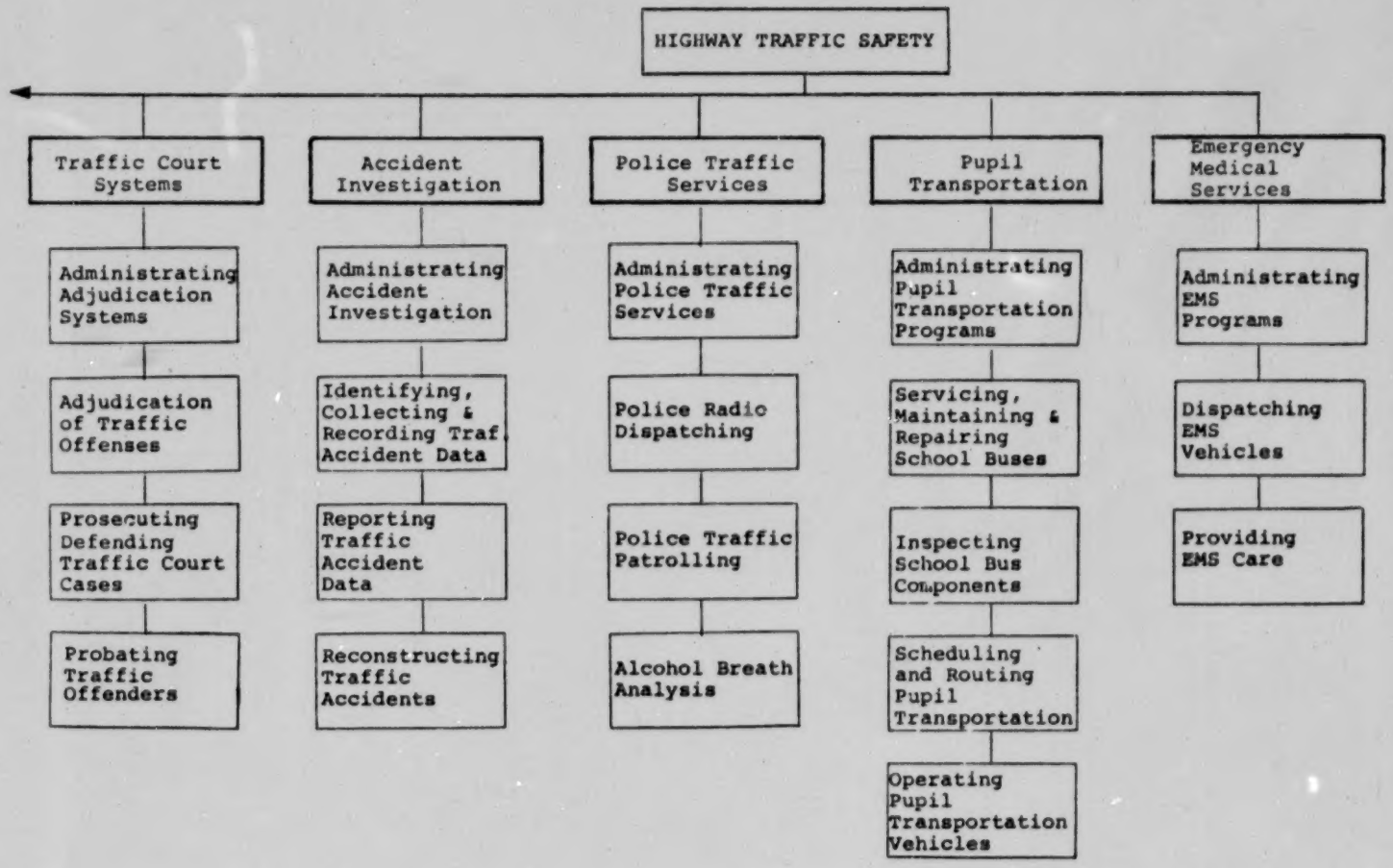


Figure 5

INTERRELATIONSHIP OF HIGHWAY TRAFFIC SAFETY ADMINISTRATING FUNCTIONS

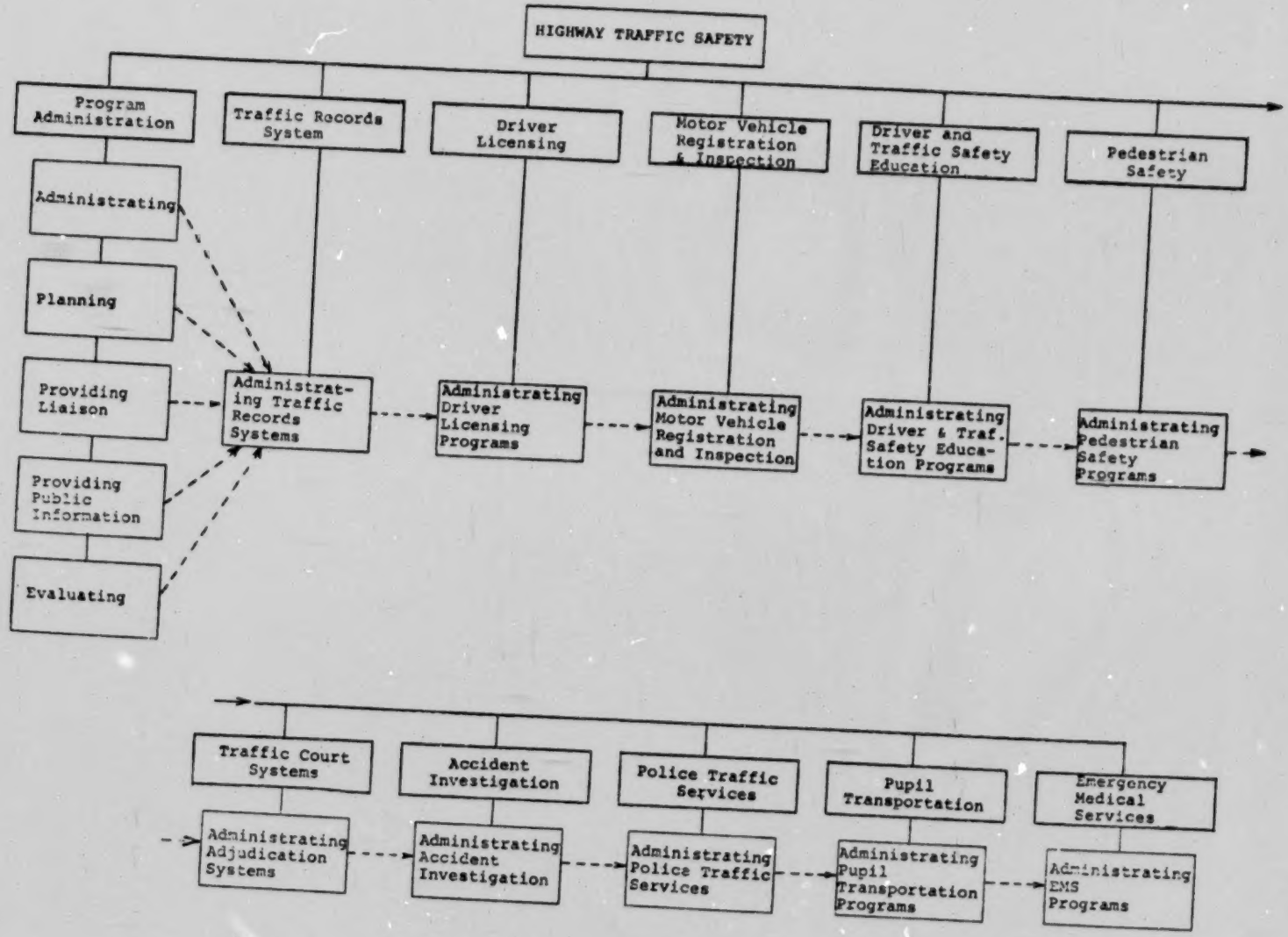


Figure 6

INTERRELATIONSHIP OF EXAMINING, INSPECTING, AND PATROLLING FUNCTIONS

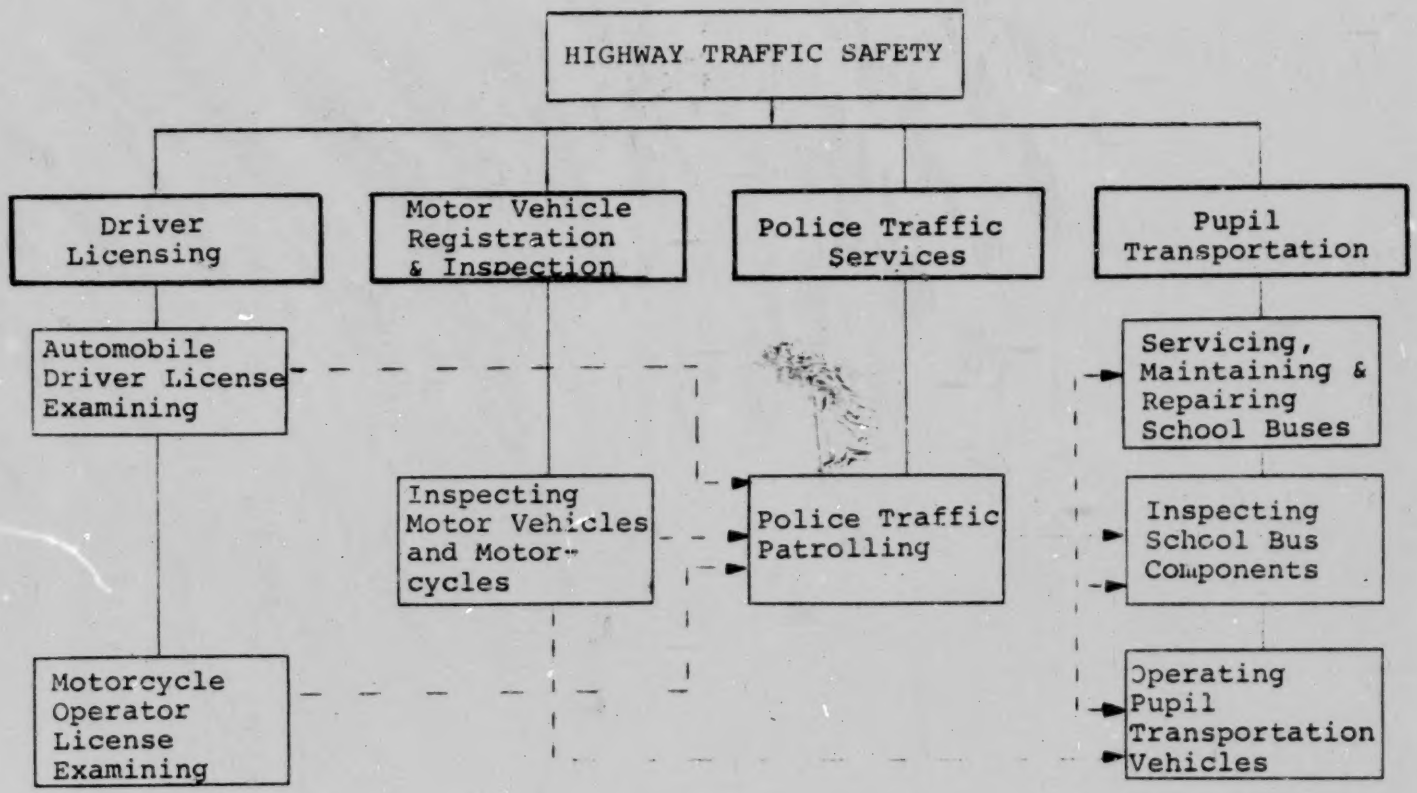


Figure 7

INTERRELATIONSHIP OF CODING, PROCESSING, RECORDING, REPORTING AND ANALYZING FUNCTIONS

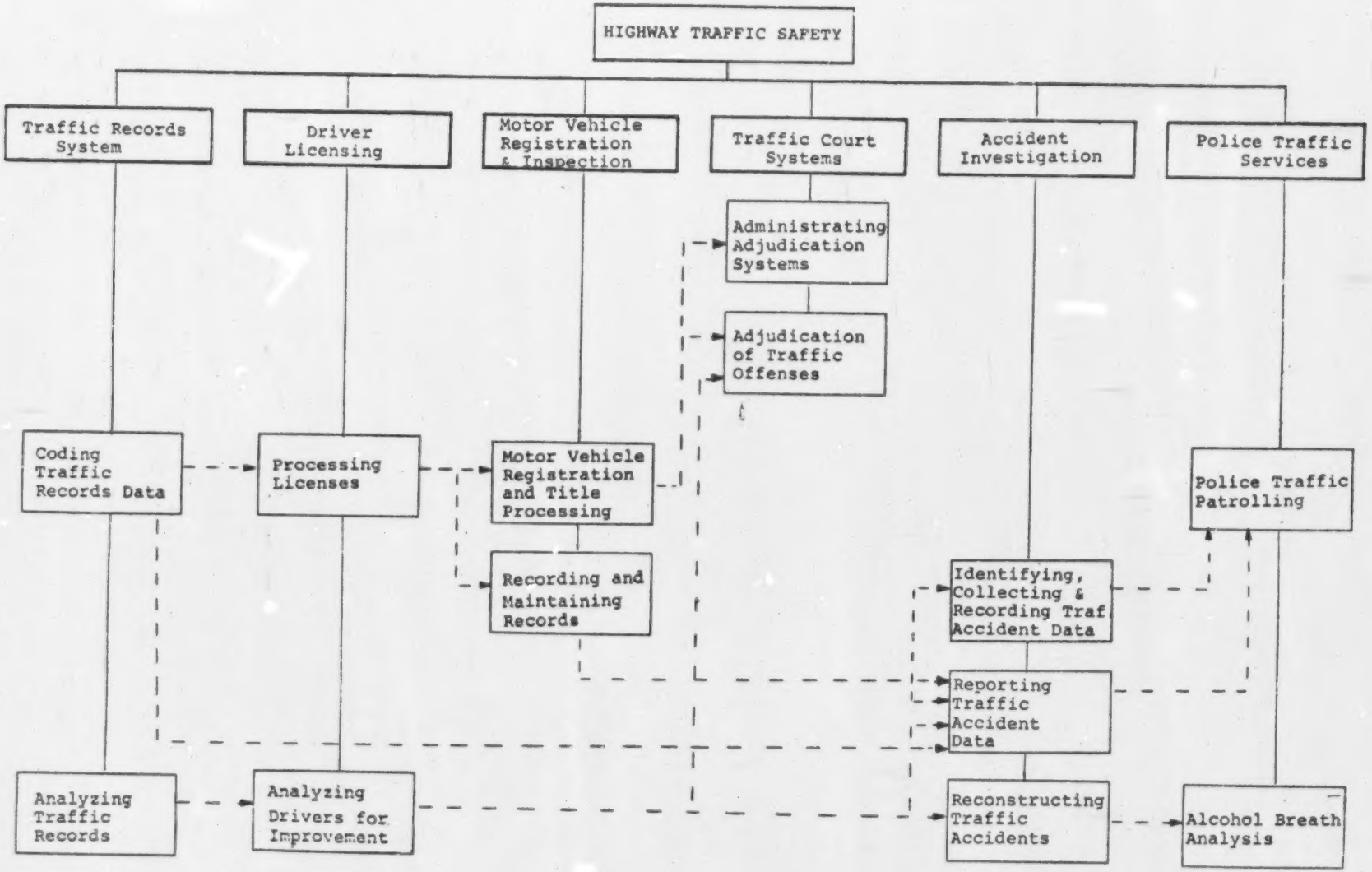


Figure 8

INTERRELATIONSHIP OF INVESTIGATING AND DISPATCHING FUNCTIONS

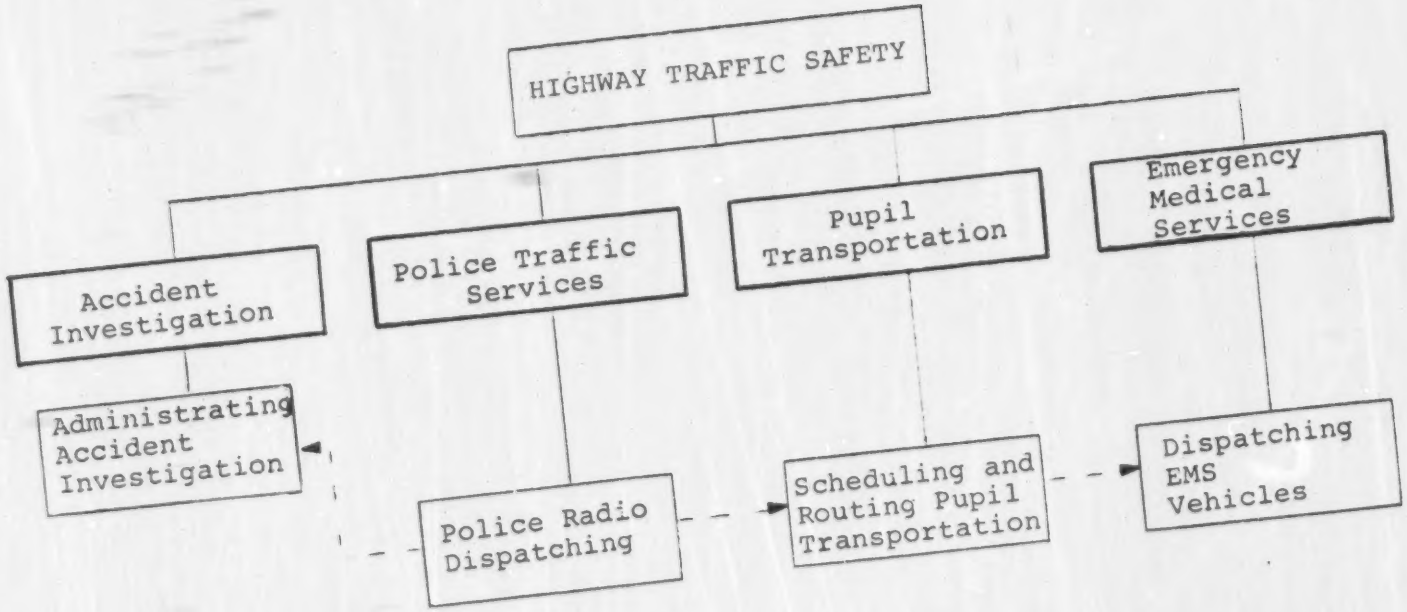
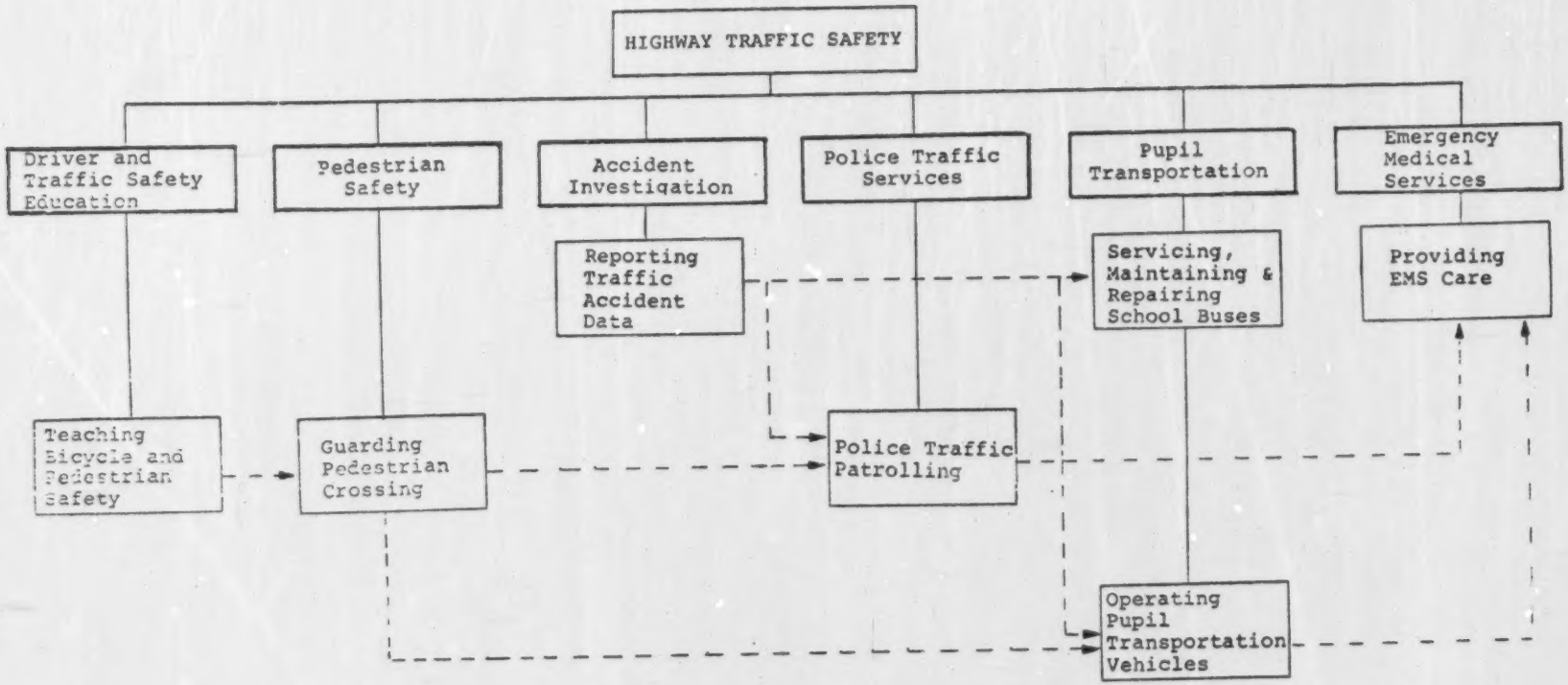


Figure 9

INTERRELATIONSHIPS OF TEACHING, GUARDING CROSSINGS, PATROLLING, AND REPORTING ACCIDENT DATA FUNCTIONS



8. The majority of on-site specialists interviewed were employed within the civil service system.

9. Certain functions were found not common to all of the governmental agencies having a common name nor to occupations described by the same job title.

10. Identical or very similar highway traffic safety functions were being performed in different locations under a variety of functional descriptions or job titles. This may be a result of tradition, protection of "territory," different needs being served, bureaucratic structure of the civil service system in which highway traffic safety personnel perform.

11. Various highway traffic safety specialists interviewed did not view themselves as being highway traffic safety specialists but as individuals employed by an organization or agency. This was primarily the case with individuals performing functions within the functional areas of traffic court systems and pupil transportation.

12. The process of delineating a function from a task proved to be a most difficult endeavor. There was a fine line of distinction between a function and a task when reporting the data. In the process of delineating a function from a task it became apparent that in various instances the terms were interchangeable.

    A major function within one functional area became a task performed within one or more functions described within other functional areas. The project staff, therefore, composed working definitions for use in writing the guide. A functional area was defined as a cluster of functions aimed at achieving a common goal in highway traffic safety. A function was defined as a group of specific tasks, actions, or roles performed by one or more individuals in order to further specific objectives of highway traffic safety. The Highway Traffic Safety Manpower Functions Guide was thus developed. Sections by functional area consisted of an introduction and function description.

13. When organizing the functions within each functional area it proved difficult to establish priorities of functions on the basis of the (a) importance of the function to highway traffic safety programs, (b) level of the manpower effort, (c) time required for the performance of the function, and (d) criticalness of the function to the overall highway traffic safety program.

14. It was not feasible to categorize the functions according to either the eighteen program standard areas or the eight proposed program areas. This was caused by the lack of functions being clearly specified within each program standard, the duplication of similar or related functions within two or more program standard areas, and the fact that the project scope did not include the environmental standards. Thus, the resulting categories consist of eleven functional areas containing forty-five functions. It was further recognized that this categorization into functional areas was not the only possible means of classifying the functions but it proved to be the most feasible for the material and information contained within the guide.

15. More than half of the highway traffic safety specialists interviewed expressed a need for specialized training programs and for curriculum training materials such as course outlines and instructor manuals related to their particular areas of interest in highway safety.

16. A high degree of interest in this study existed among highway safety specialists throughout the country. This was evident from the extremely cooperative response received by the project staff,from the more than 120 requests for further data on the project and for copies of the Highway Traffic Safety Manpower Functions Guide.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The project "Revision and Update of Traffic Safety Manpower Training Program Development Guide" was conducted by CVTE. The purpose was to establish an occupational schema that described the functions and their interrelationships that must be performed by manpower in order to accomplish the objectives of the highway traffic safety program as required through the eighteen safety program standards of NHTSA.

The procedure and methodology employed to identify the forty-five highway traffic safety functions consisted of (1) interviewing NHTSA program specialists; (2) interviewing on-site highway traffic safety program personnel at the administrative, professional, and technical levels; and (3) conducting a review of the highway traffic safety literature. On-site specialists performing the identified highway traffic safety functions were identified for the project staff by program specialists and on-site program administrators. Subsequently, a total of ninety-seven on-site specialists were interviewed in field settings to determine the functions they performed in carrying out their portion of the highway traffic safety program. The on-site specialists represented a cross-section of state and local personnel in seventeen states within all ten NHTSA field regions.

The analysis and classification of the data resulted in a publication entitled Highway Traffic Safety Manpower Functions Guide. This guide consists of descriptions of forty-five functions within the eleven designated functional areas of (a) Program Administration, (b) Traffic Records, (c) Driver Licensing, (d) Motor Vehicle Registration and Inspection, (e) Driver and Traffic Safety Education, (f) Pedestrian Safety, (g) Traffic Court Systems (h) Accident Investigation, (i) Police Traffic Services, (j) Pupil Transportation, and (k) Emergency Medical Services. The descriptive content of each function focuses on (a) delineating highway traffic safety functions, (b) describing performance of each function, (c) indicating contribution of each function to highway traffic safety, and (d) providing examples of job titles and agencies in which the function was performed.

The information contained within the guide should prove of value to personnel involved in the diverse areas of highway

traffic safety and to individuals exploring potential manpower opportunities in the area of highway traffic safety.

Conclusions

Based upon the findings of the project, the following conclusions seem warranted:

1. The accomplishment of nonenvironmental highway traffic safety program objectives can be achieved through an adequate supply of manpower, competently performing the forty-five functions identified and described in the Highway Traffic Safety Manpower Functions Guide.

2. Within these forty-five functions identified, there were a variety of situations where the function required in one functional area was similar or identical to the function required in one or more other functional areas. Individuals performing in one of these functions could perform a similar function within another functional area with little or no additional training. Further, the training of individuals for similar functions in different functional areas may be accomplished through the same of similar programs.

3. Based upon the analysis of literature it was determined that a fine line of distinction existed between a function and a task. The terms at times were used interchangeably when describing performance as it related to a function.

4. It appeared that the variety of highway traffic safety related functions were greater than is generally realized as no one person, agency, or publication was able to provide the project staff with a complete listing of functions.

5. Since the majority of on-site specialists interviewed were employed within the civil service system, this (a) may eliminate truly functioning career ladders and lattices being developed for highway safety personnel, and (b) may not give individuals recognition or credit for training or performance competences within highway traffic safety.

6. To avoid the information obtained from reflecting policies and procedures of a limited number of highway traffic safety organizations and agencies,

several persons performing similar or like functions within a variety of geographic locations should be interviewed, or an alternate method such as the delphi technique for obtaining data should be employed.

7. Since persons performing functions do not view themselves as being highway traffic safety specialists then efforts should be made to emphasize the interrelatedness of all functions with the overall highway traffic safety effort.

Recommendations

In light of the findings and conclusions of the project investigation, the following recommendations were made:

1. Every effort should be made to insure that this project would eventually result in the publication of a Highway Traffic Safety Manpower Functions Guide to satisfy a need voiced by a wide variety of traffic safety specialists across the nation.

2. The description of similar functions such as dispatching, analysis of records, and inspecting vehicles, warrant further study into performance commonalities existing between each.

3. Future methodologies and procedures should not incorporate a dependence on NHTSA personnel to fulfill the scope of work (i.e., providing clearance to work within regions, attending meetings, and reviewing materials), as they were unable to do so within the agreed upon time specifications within this project.

4. A further study should be undertaken to identify and catalogue the training programs and curriculum materials currently available for manpower development at the state and local levels in the eleven highway traffic safety functional areas described in the guide. This study also should result in an assessment of the need for additional manpower training programs and curriculum materials in each functional area.

5. An effort should be made to gather and compile those task analyses existent for the forty-five highway traffic safety functions identified in this study.

6. Additional literature and informational programs identifying career opportunities in all areas of

highway traffic safety should be developed and made available to potential students, school counselors, and parents. Specifically, a series of career guidance booklets based on the results of this project should be made available to interested parties.

7. Consideration should be given to the establishment of a national highway traffic safety repository or resource center (perhaps with regional subdivisions) where persons involved in any and all areas of highway traffic safety can turn for information, guidance, training materials, data on ongoing and proposed programs, manpower training programs, management-level seminars, bibliographies, and other highway traffic safety miscellanea.

8. State and national education advisory committees should include highway traffic safety representatives. These committees should have data indicating manpower needs, forecasts, and current training capacities for highway traffic safety occupations.

9. In states where highway traffic safety manpower needs are greatest, highway traffic safety authorities and educators should be drawn together to develop statewide plans for highway traffic safety manpower development.

10. Additions or revisions should be made in the Dictionary of Occupational Titles to identify the occupations within the highway traffic safety area. This should aid in standardizing the occupational classifications within the highway traffic safety work force.

11. Additions or revisions in the U.S. Office of Education Occupational Codes list should identify the occupations within the highway traffic safety areas. This would aid in the annual reporting of manpower training within the highway traffic safety area and the acquisition of data necessary for manpower development.

APPENDIXES

APPENDIX A

NHTSA Survey Instrument #1

NHTSA SURVEY INSTRUMENT #1

Consultant_____

Title_____

The purpose of this interview is to identify the traffic safety specialtics contained within the current traffic safety program. In regard to this interview, a traffic safety specialty is defined as a particular activity or job element performed within an occupation and directly related to highway traffic safety, e.g., breath analyzing, vehicle inspecting, and crash investigating.

1. What traffic safety specialties are required to facilitate this traffic safety program?

NHTSA SURVEY INSTRUMENT #1

Specialty	Consultant	Interviewer	Date
_____	_____	_____	_____

2. Is this specialty known by any other names?

   No ____ Yes ____ Name(s)_____

   _____

3. Has this specialty resulted from the proposed 1972 NHTSA Safety Standards or was it an existing specialty?

   New ____ Existing ____

4. How important is this specialty in meeting the purpose(s) of the safety program?

   High ____ Average ____ Low ____

   Comments:_____

   _____

   _____

5. What effect does/will this specialty have on highway safety?

   Major ____ Average ____ Low ____

   Comments:_____

   _____

   _____

6. At what level do you see this specialty being performed?

   Administrative ____ Professional ____ Technical ____

   Managerial ____ Skilled ____ Unskilled ____

7. Under what job title(s) is this specialty now being performed?

_____

_____

8. Is this specialty a full time job for a person?

Yes ____ No ____

9. Should this specialty be combined with other specialties?

Yes ____--Which?_____ No ____

_____

_____

10. Is there a shortage of qualified personnel to perform this specialty?

Yes ____--Estimate_____ No ____

11. Does this specialty require a license or certification?

Yes ____--Name_____ No ____

_____

12. How should the record-keeping system for this specialty relate to other information systems, i.e., driver's licensing, motor vehicle registration?

_____

_____

_____

13. Can you name some recent manpower development publications that deal with this specialty?

_____

_____

_____

Note: Is there a need for additional publications?

Comments: _____

_____

_____

14. Is this specialty uniform in all states?

Yes ____ No ____

Comments: _____

_____

_____

15. Should this specialty be included in a "Model Traffic Ordinance" (to be developed and adopted by the state legislatures)?

Yes ____ No ____

Comments: _____

_____

_____

16. What persons/agencies are responsible for establishing this specialty when not in existence?

_____

_____

_____

17. What person/agency is charged with the responsibility for evaluation and updating this specialty/standard on federal, state, or local level?

_____

_____

_____

18. Can you give me the names and job titles of two individuals who perform this specialty in an exemplary fashion and could be made available to us for interviews in the near future?*

Name_____ Name_____

Title_____ Title_____

Location_____ Location_____

_____ _____

*Could you assist our staff in contacting and arranging interviews in the future with these specialists? Can you obtain clearance?

19. Do you have any additional comments?

APPENDIX B

Letter to NHTSA Program Specialists

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION

Phone (614) 486-3655

THE OHIO STATE UNIVERSITY
1960 KENNY ROAD
COLUMBUS, OHIO 43210

May 15, 1973

Dear Sir:

This letter is to confirm the dates of May 21, 22, and 23, 1973, when the project staff from The Center for Vocational and Technical Education will be in Washington for the purpose of meeting with you as the NHTSA representative who has been designated by the Contract Technical Manager, George Palmer, to serve as a consultant to the project, "Revision and Update of Traffic Safety Manpower Program Development Guide." We would like to request that each NHTSA consultant be prepared to assist the project staff in: (a) interpreting his designated area of the current status of the NHTSA safety programs (b) identifying and defining traffic safety specialties within each of the areas which must be performed to enforce the current status of the programs, (c) identifying at least two specific persons in each traffic safety specialty who are performing each of these specialties in an exemplary fashion, and (d) assisting the project staff in arranging interviews with each of the traffic safety specialists.

We also request that you allocate one day to be arranged later in the summer in which you will be available, if necessary, to meet with our staff in Columbus, Ohio, in order to continue planning interviews with traffic safety specialists.

Your assistance in regard to this project will be greatly appreciated. If you have any questions please contact us at (614) 486-3655, or contact George Palmer, NHTSA.

Sincerely,

Ron Daugherty

Ron Daugherty
Assistant Director for Field
Services & Special Projects

RD/pf
Enclosure

KEY QUESTIONS

For the purpose of this interview, a traffic safety specialty is defined as a particular activity or job element performed within an occupation and directly related to highway traffic safety, e.g., breath analyzing, vehicle inspecting, and crash investigating.

A key question will be: What traffic safety specialties are required to facilitate this traffic safety program; and for each specialty identified, questions similar to the following will be asked:

What effect (does/will) this specialty have on highway safety?

At what level do you see this specialty being performed?
Administrative _____ Professional ____ Technical ____
Managerial _____ Skilled ____ Unskilled ____

Can you name some recent manpower development publications that deal with this specialty?

Can you give me the names and job titles of two individuals who perform this specialty in an exemplary fashion and could be made available for us to interview in the near future?

Name_____ Name_____

Title_____ Title_____

Location_____ Location_____

*Could you assist our staff in contacting and arranging interviews in the future with these specialties? Can you obtain clearance?

APPENDIX C

List of NHTSA Program Specialists and On-Site Highway Traffic Safety Specialists Interviewed

NHTSA PROGRAM SPECIALISTS INTERVIEWED

George D. Brandt
Highway Safety Management Specialist
Office of Standards Development and Implementation

Lewis S. Buchanan
Highway Safety Management Specialist
Office of Standards Development and Implementation

Alfred Crancer, Jr.
Operations Research Analyst
Office of Alcohol Countermeasures

Charles M. Featherstone
Program Coordinator
Office of Standards Development and Implementation

Dwight H. Fee
Project Manager
Office of Alcohol Countermeasures

Paul F. Fish
Highway Safety Management Specialist
Office of Alcohol Countermeasures

William S. Foulis
Safety Program Specialist
Office of Alcohol Countermeasures

Richard Frederick
Highway Safety Management Specialist
Office of Alcohol Countermeasures

George H. Jones
Program Officer
Office of State and Community Comprenensive Programs

A. Dewey Jordan
Highway Safety Management Specialist
Office of Standards Development and Implementation

Roger A. Kurrus
Highway Safety Management Specialist
Office of Standards Development and Implementation

A. James Latchaw
Highway Safety Management Specialist
Office of Standards Development and Implementation

Dr. Dawson A. Mills
Chief, Rescue and Emergency Medical Services Division
Office of Standards Development and Implementation

Dr. Nevil L. Moore
Highway Safety Management Specialist
Office of Standards Development and Implementation

Walter J. Norbet
Team Leader--Traffic Laws and Adjudication
Office of Standards Development and Implementation

Richard H. Smith
Computer System Analyst
Office of Accident Investigation
and Data Analysis

David H. Soule
Highway Safety Management
Specialist
Office of Standards
Development and
Implementation

Harold B. Thursby
Highway Safety Management
Specialist
Office of Standards
Development and
Implementation

Marvin H. Wagner
Highway Safety Management
Specialist
Office of Alcohol
Countermeasures

C. Robert Wright
Chief, Program Review Division
Office of State and
Community Comprehensive
Programs

Richard A. Young
Highway Safety Management
Specialist
Office of Standards
Development and
Implementation

ON-SITE HIGHWAY TRAFFIC SAFETY SPECIALISTS

PROGRAM ADMINISTRATION

James Arnold
Executive Assistant and
Program Manager
State Traffic Safety Program
Austin, Texas

Ronald Bos
Deputy Director
Office of Highway Safety
Planning
Lansing, Michigan

William Bricker
Deputy Commissioner
Department of Motor Vehicles
Glen Burnie, Maryland

Thomas R. Krycinski
Chief, Program Planning and
Development
Office of Highway Safety
Planning
Lansing, Michigan

Thomas O. Reel
Chief, Program Liaison
Office of Highway Safety
Planning
Lansing, Michigan

Edmond R. Richer
Chief, Highway Safety Group
Harrisburg, Pennsylvania

J. D. Wright, Jr.
Director
Governor's Highway Safety
Commission
Tallahassee, Florida

TRAFFIC RECORDS SYSTEM

John Brady
Statistician
New York Department of
Motor Vehicles
Albany, New York

Frank J. Conley
Director of Program
Development
New York Department of
Motor Vehicles
Albany, New York

Robert Grosso
Traffic Records Specialist
New York Department of
Motor Vehicles
Albany, New York

Harvey Kling
Fatality File Analyst
Louisiana Highway Safety
Commission
Baton Rouge, Louisiana

Fidelis Newcomb
Traffic Records Specialist
New York Department of
Motor Vehicles
Albany, New York

John W. Theriot, Jr.
Specialist, Computer Systems
Louisiana Highway Safety
Commission
Baton Rouge, Louisiana

Josette Snowdon
Principal Statistics Clerk
New York Department of
Motor Vehicles
Albany, New York

Raymond Ward
Traffic Records Specialist
New York Department of
Motor Vehicles
Albany, New York

DRIVER LICENSING

Mary D. Collins
Clerk Typist
Department of Motor Vehicles
Sacramento, California

George A. LaPrath
Driver's License Examiner
Division of Driver's License
Department of Motor Vehicles
Sacramento, California

Alfred Moren
Assistant Manager
Division of Driver's
License
Department of Motor Vehicles
Sacramento, California

Hisa Sakuma
Registration Assistant
Division of Driver's License
Department of Motor Vehicles
Sacramento, California

Owen V. Owens
Manager
Division of Driver's
License
Department of Motor Vehicles
Sacramento, California

H. L. Shonk
Motor Cycle License Examiner
Ohio State Highway Patrol
Columbus, Ohio

MOTOR VEHICLE REGISTRATION AND INSPECTION

Elmer Brown
Registrar of Vehicles and
Vessels
Department of Motor Vehicles
Sacramento, California

Thelma K. Marchi
Cashier Clerk
Department of Motor Vehicles
Sacramento, California

Dennis Eisnach, Captain
Office of Motor Vehicle
Inspection
Pierre, South Dakota

Garry Swanson
Inspector, Motor Vehicle
Inspection Stations
South Dakota Highway Patrol
Shelby, South Dakota

John Zeiszler
Manager
Zeiszler's Service Station
Pierre, South Dakota

DRIVER AND TRAFFIC SAFETY EDUCATION

Dudley Andry
Executive Director
Metropolitan Safety Council
New Orleans, Louisiana

John Carmichael
Dean of Instructional Resources
Essex County College
Newark, New Jersey

Larry L. Cathell
Supervisor
State Department of Education
Columbus, Ohio

Wesley Colgan, Jr.
Coordinator, Driver Education
Santa Rosa City Schools
Santa Rosa, California

Thomas W. Donald
Administrator's Aide
Los Angeles Public Schools
Los Angeles, California

Gwen Finley
Teaching Assistant-Driver Education
Austin High School
Houston, Texas

Donald LaFond
Coordinator, Safety Education
Maryland State Department of Education
Baltimore, Maryland

Robert E. Gustafson
Associate Professor
Michigan State University
East Lansing, Michigan

Jackie Hawkins
Teaching Assistant-Driver Education
Waltsip High School
Houston, Texas

Leslie V. Hawkins
Teacher Educator
Texas A&M University
College Station, Texas

Kent Jessee
Instructor, Motorcycle Safety
Central Missouri State University
Warrensburg, Missouri

Byron G. Jones, Jr.
Driver Training Teacher
Santa Rosa City Schools
Santa Rosa, California

Letha Jones
Teaching Assistant-Driver Education
Robert E. Lee High School
Houston, Texas

David Kraemer
Driver Education Teacher
Southern Illinois University
Carbondale, Illinois

Howard Krueger
Instructor, Vehicle Inspection
South Dakota State Highway Patrol
Burke, South Dakota

Larry Lindauer
Traffic Safety Research Center
Southern Illinois University
Carbondale, Illinois

Pat Long School Safety Officer
Lansing Police Department
East Lansing, Michigan

Leonard J. Manwaring
Driver Education Teacher
Santa Rosa City Schools
Santa Rosa, California

John O'Brien
Training Officer
Department of Motor Vehicles
Sacramento, California

Philip J. O'Leary
Supervisor, Safety and Traffic Programs
Michigan Department of Education
Lansing, Michigan

Hubert J. Paz
Driver Improvement Analyst
Department of Motor Vehicles
Sacramento, California

Marge Peck
Teacher Educator
North Shore Driving School
Chicago, Illinois

E. M. Randolph
Police Lieutenant
New Orleans Police Department
New Orleans, Louisiana

Donald Rector
Supervisor of Traffic and Safety Education
Los Angeles Public Schools
Los Angeles, California

Warren Rumsfield
President
North Shore Driving School
Chicago, Illinois

Robert I. Schultz
Driver Education Teacher
Santa Rosa City Schools
Santa Rosa, California

Richard Shell
Administrative Assistant
Northmont Local School District
Englewood, Ohio

Lois Smith
Public School Teacher
Des Moines Public Schools
Des Moines, Iowa

Ralph J. Strother
Supervisor, Traffic Services Training
Department of Education
Raleigh, North Carolina

Jack Weaver
Teacher Educator
Texas A&M University
College Station, Texas

PEDESTRIAN SAFETY

Frances B. Long
Crossing Guard Coordinator
Los Angeles Police Department
Los Angeles, California

Gonzalo C. Talamantes
School Crossing Guard
Los Angeles Police Department
Los Angeles, California

Woodrow W. Smith
Traffic Supervisor
Los Angeles Public Schools
Los Angeles, California

TRAFFIC COURT SYSTEM

Philip Abraham
Judge
Multnomah County Courthouse
Portland, Oregon

Harvey Harrison
Administrator for Lower Courts
Temple of Justice
Olympia, Washington

Wesley D. Carter
Court Administrator
Multnomah County Courthouse
Portland, Oregon

Robert J. Hogan
Chief, Adjudication Division
New York Department of
Motor Vehicles
Albany, New York

Dale W. Conn
Prosecutor
Multnomah County Courthouse
Portland, Oregon

Duane Scott
Traffic Court Administrator
Temple of Justice
Olympia, Washington

Margaret Groome
Probation Coordinator
Alcohol Safety Action
Project
New Orleans, Louisiana

Partick Leahy
Chittenden County State
Attorney
Burlington, Vermont

ACCIDENT INVESTIGATION

Jack Holland
Patrol Officer
Ohio State Highway Patrol
Elyria, Ohio

Harry L. Meyersohn
Supervisor of Training
Dade County Public Safety
Miami, Florida

POLICE TRAFFIC SERVICES

Linda Buczek
Enforcement Coordinator
Alcohol Safety Action Project
New Orleans, Louisiana

James Callas
Sergeant, Sheriff's Department
Alcohol Safety Action Project
City of Industry, California

Harry Carpenter
Patrolman, Traffic Division
Columbus Police Department
Columbus, Ohio

Dan Chun
Alcohol Safety Enforcement Officer
Alcohol Safety Action Project
New Orleans, Louisiana

Jean Craig
Coordinator, Medical and Social Services
Alcohol Safety Action Project
New Orleans, Louisiana

Dave Dailey
Sergeant
Columbus Police Department
Columbus, Ohio

Kathleen Delpit
Social Worker
Alcohol Safety Action Project
New Orleans, Louisiana

Paul Gabel
Patrolman, Traffic Division
Columbus Police Department
Columbus, Ohio

Bob Ladner
Alcohol Safety Enforcement Officer
Alcohol Safety Action Project
New Orleans, Louisiana

William Love
Project Director
Alcohol Safety Action Project
New Orleans, Louisiana

Delmar Wogan
Patrolman, Traffic Division
Columbus Police Department
Columbus, Ohio

PUPIL TRANSPORTATION

Manford L. Combs
Chief, Pupil Transportation
State Department of Education
Columbus, Ohio

Joseph Conitia
Pupil Transportation Supervisor
Parma City School District
Parma, Ohio

Joyce Eads
Bus Driver
Upper Arlington School District
Arlington, Ohio

Victor Lahman
President, Hamilton County Bus Services
Cincinnati, Ohio

Herman Massie
Supervisor
State Department of Education
Columbus, Ohio

Thelma O'Donnel
Transportation Supervisor
Centerville, Ohio

John Rochester
Supervisor
State Department of Education
Columbus, Ohio

John Thome
President, Ecotran
Cleveland, Ohio

Alfred Waibel
Maintenance Supervisor
Columbus Board of Education
Columbus, Ohio

EMERGENCY MEDICAL SERVICES

J. A. Dowling, Jr.
Chief, Rescue-First Aid
Department of Public Safety
Jacksonville, Florida

Robert Fitts
Emergency Medical Technician
University Hospital
Jacksonville, Florida

James F. Hall
Lieutenant, Fire Division
Department of Public Safety
Jacksonville, Florida

Robert L. Kotsis
Lieutenant, Fire Division
Department of Public Safety
Jacksonville, Florida

Robert Orr
Colonel
Ohio National Guard
Worthington, Ohio

V. L. Micheel
Executive Director
Florida Seven County EMC Project
Jacksonville, Florida

Herbert E. Ramsdell
Emergency Medical Technician
University Hospital
Jacksonville, Florida

John M. Waters, Jr.
Director
Department of Public Safety
Jacksonville, Florida

APPENDIX D

On-Site Survey Instrument #2

SURVEY INSTRUMENT #2

On-Site Interviews

Interviewer:_____

Date:_____

Specialty: Consultant: Region:

_____ _____ _____

Prof. Address:_____

_____Phone No.:_____

1. Briefly give us a job summary of your specialty:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

IDENTIFICATION

1. Is this specialty known by any other name(s)?

   No____ Yes____ Names_____

   _____

   _____

2. Is this specialty a full time job for a person?

   No____ Yes____ Comment:_____

   _____

3. Are there any new or additional specialties to be performed in conjunction with this specialty?

   No____ Yes____

   List:_____

   _____

4. Should this specialty be combined with other specialties?

   No____ Yes____ Which?_____

   _____

5. At what level do you see this specialty being performed?

   Administrative____ Professional____ Managerial____

   Skilled____ Unskilled____ Technical____

   Comments:_____

   _____

6. What manufacturing associations, trade unions, professional societies, or other agencies are concerned or involved with this specialty?

   _____

   _____

NATURE OF SPECIALTY

1. What special contribution could/does this specialty make to:

   a. Crash reporting system:_____

   _____

   b. Highway safety:_____

2. Does the record-keeping for this specialty relate to other information systems, i.e., driver's licensing, motor vehicle registration?

   No____ Yes____ How does it relate?_____

   _____

3. How has this specialty changed since its inception?

   _____

   _____

4. How will this specialty change in the near future (next few years)?

   _____

   _____

5. Are there any particular hazards, special difficulties, or special physical requirements involved in performing this specialty?

   _____

   _____

TASKS

1. What is needed to facilitate the performance of this specialty?

_____

_____

_____

2. Where can a job description that covers this specialty be obtained?

_____

Could you assist us in obtaining a copy of the job description?

No____ Yes____

3. Please describe briefly a typical day's routine, specifying all job functions:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

PERSONAL

1. What is your job title?_____

_____

2. How long have you performed this specialty?

_____

3. What was your last job?_____

Did it help prepare you for your present job?

No____ Yes____ Comments:_____

_____

4. What is the job title of your immediate supervisor?

_____

5. Does his job involve any safety specialties other than yours?

No____ Yes____ Which?_____

_____

6. What are the job titles of your subordinates?_____

_____

7. With what safety specialties are they involved?

_____

_____

8. Does anyone serve as a partner or co-worker with you in your specialty?

No____ Yes____ Comments:_____

_____

TRAINING

1. Have you received any training that has helped you perform this specialty?

   No____ Yes____ Training:_____

   _____

2. Can you name some recent manpower development publications that deal with this specialty?

   No____ Yes____ List:_____

   _____

3. Is there a shortage of personnel to perform this specialty?

   No____ Yes____ Your estimate:_____

   (On what did you base your estimate)?

   _____

   _____

4. What actions are being taken to remedy this (Question #3) situation?

   _____

   _____

5. Are there opportunities for advancement in this field or into related fields?

   No____ Yes____ Comments:_____

   _____

6. What "special" training, such as schooling, apprenticeship, or related experience, is required to perform this specialty?

_____

_____

7. Does this specialty require a license, certification, or degree?

No____ Yes:____ Type:_____

ADDITIONS

1. Do you have any additional comments?

APPENDIX E

Project Correspondence

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION

Phone (614) 486-3655

THE OHIO STATE UNIVERSITY
1960 KENNY ROAD
COLUMBUS, OHIO 43210

Dear

With reference to our recent telephone conversation, this will confirm as the date I will visit with you for the purpose of gathering data to assist in the development of the Traffic Safety Specialties Handbook.

The Center for Vocational and Technical Education, The Ohio State University, is under contract with the Department of Transportation to develop the Traffic Safety Specialties Handbook. The handbook will describe the various safety specialties required to facilitate highway traffic safety.

I will plan to arrive in on At this time, I would like to complete an interview questionnaire with you and, if possible, spend part of the day personally observing you and the various functions relating to your specialty of

Enclosed is a synopsis of the interview schedule which will be used in connection with my on-site visit.

If you have any questions concerning the interview, please contact me at (614) 486-3655. Your cooperation in this matter is very much appreciated.

Sincerely,

pf
Enclosure

EXAMPLE

October 4, 1973

Region III, NHTSA
Room 817
Baltimore, MD 21201

Dear :

I will be in Region III for the purpose of interviewing _____, state supervisor of pedestrian safety, Baltimore; and _____ deputy commissioner, Department of Motor Vehicles, Glen Burnie, on October 23, 1973. These persons have been identified by the NHTSA staff in Washington as possible consultants for the project, "Revision and Update of Traffic Safety Manpower Development Guide," which is in progress at The Center under contract with NHTSA.

If you would like any further information, please contact me at (614) 486-3655, extension 362.

Sincerely,

Anne C . Hayes
Research Associate

ACH/pf

79/80

APPENDIX F

Letter to NHTSA Program Specialists
Critique Guidelines

THE CENTER FOR VOCATIONAL AND TECHNICAL EDUCATION

Phone (614) 486-3655

THE OHIO STATE UNIVERSITY
1960 KENNY ROAD
COLUMBUS, OHIO 43210

DATE: November 2, 1973

TO:

FROM: Project Staff, The Center for Vocational & Technical Education

SUBJECT: Critique of Draft Materials for Traffic Safety Specialties Handbook

Acting on information obtained from you in the course of our NHTSA interviews in May, last, the project staff interviewed a number of on-site traffic safety specialists throughout the country. The purpose of the interviews was to obtain detailed information on each specialty under field conditions. The project staff prepared descriptions of each specialty and would again like to avail of your expertise in your area of specialization, as per our contract with NHTSA.

Would you please critique the attached material according to the following directions:

1. Review each specialty description and attach your written comments according to the following criteria:
   a. Completeness of content
   b. Relevance of functional description
   c. Up-to-dateness of material
   d. Representativeness of the specialty
   e. Comprehensiveness of the description
   f. Accuracy of generalities made from data collection on site

2. Prepare your comments prior to the project staff meeting with you in Washington, D.C., on November 14-15, 1973, at which time we can discuss the critique.

3. Please be prepared to suggest the name(s) of a person familiar with highway safety who might serve on a second review panel to further critique the contents for the handbook.

Your suggestions, comments, and criticisms will be greatly appreciated.

The project staff wish to avail of this opportunity to thank you again for your assistance in May and we will be looking forward to working with you and obtaining all your suggestions.

If you have any questions, please contact the NHTSA Contract Technical Manager, George Palmer, or call Anne Hayes, The Center for Vocational and Technical Education, at (614) 486-3655, ext. 362.

pf
Enc.

REFERENCES

REFERENCES

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